

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of generating antibodies useful for assaying a sample for fuel oxygenates selected from the group consisting of methyl tert-butyl ether, ethyl tert-butyl ether, methyl tert-amyl ether, and tert-butyl alcohol, comprising (i) conjugating a hapten to a carrier protein to produce a conjugate, wherein said hapten is CH₃O-C(CH₃)₂-CH₂-X-B where X is a spacer and B is a group capable of binding to a carrier protein; (ii) injecting the conjugate into an animal; (iii) harvesting antibody-synthesising cells from the animal; (iv) fusing the antibody-synthesising cells with myeloma cells to form hybridoma cells; (v) cultivating the hybridoma cells; (vi) screening the cultivated cells to find desired cells producing monoclonal antibodies capable of binding methyl tert-butyl ether (“MTBE”); and (vii) cultivating said desired cells and harvesting said monoclonal antibodies.
2. (Cancelled).
3. (Previously Presented) A method according to claim 1, wherein the spacer X comprises a hydrocarbon chain of 2-8 carbon atoms.
4. (Previously Presented) A method according to claim 2, wherein the spacer X is: -CH₂.CH₂.CH(CH₃).CH₂.
5. (Previously Presented) A method according to claim 1, wherein the binding group B is -CHO.

6. (Previously Presented) A method according to claim 1 wherein the carrier protein is selected from bovine serum albumin, human serum albumin, rabbit thyroglobin and keyhole limpet haemocyanin.

7. (Cancelled).

8. (Cancelled).

9. (Currently Amended) A method of assaying a sample for fuel oxygenates selected from the group consisting of methyl tert-butyl ether, ethyl tert-butyl ether, methyl tert-amyl ether, and tert-butyl alcohol, and their breakdown products comprising generating antibodies by a method according to claim 1, further comprising carrying out an immunoassay using by a procedure comprising contacting said antibodies with said sample to effect binding of said fuel oxygenates and breakdown products in said sample to said antibodies; and carrying out a procedure for determination of the amount of said fuel oxygenates and breakdown products present in said sample.

10. (Previously Presented) A method according to claim 3, wherein the binding group B is -CHO.

11. (Previously Presented) A method according to claim 4, wherein the binding group B is -CHO.

12. (New) A method of generating antibodies useful for assaying a sample for fuel oxygenates selected from the group consisting of methyl tert-butyl ether, ethyl tert-butyl ether, methyl tert-amyl ether, and tert-butyl alcohol, comprising (i) conjugating a hapten to a carrier protein to produce a conjugate, wherein said hapten is CH₃O-C(CH₃)₂-CH₂-X-CHO where X is a spacer comprising a hydrocarbon of 2-8 carbon atoms; (ii) injecting the conjugate into an animal; (iii) harvesting antibody-synthesising cells from the animal;

(iv) fusing the antibody-synthesising cells with myeloma cells to form hybridoma cells;
(v) cultivating the hybridoma cells; (vi) screening the cultivated cells to find desired cells producing monoclonal antibodies capable of binding methyl tert-butyl ether ("MTBE"); and (vii) cultivating said desired cells and harvesting said monoclonal antibodies.

13. (New) A method according to claim 12, wherein the spacer X is:

-CH2.CH2.CH(CH3).CH2-.

14. (New) A method according to claim 12, wherein the carrier protein is selected from bovine serum albumin, human serum albumin, rabbit thyroglobin and keyhole limpet haemacyanin.

15. (New) A method of assaying a sample for fuel oxygenates selected from the group consisting of methyl tert-butyl ether, ethyl tert-butyl ether, methyl tert-amyl ether, and tert-butyl alcohol, and their breakdown products comprising generating antibodies by a method according to claim 12, further comprising carrying out an immunoassay by a procedure comprising contacting said antibodies with said sample to effect binding of said fuel oxygenates and breakdown products in said sample to said antibodies; and carrying out a procedure for determination of the amount of said fuel oxygenates and breakdown products in said sample.